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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,359	04/29/2005	Hiroshi Miyagi	A-493	8986

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EXAMINER

HU, RUI MENG

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/533,359	Applicant(s) MIYAGI ET AL.	
	Examiner RuiMeng Hu	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>04/29/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. During a telephone conversation with James H. Walters on January 12, 2007 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-8. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9-14 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement submitted on 04/29/2005 been considered by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-3** are rejected under 35 U.S.C. 102(b) as being anticipated by **Osburn et al. (US Patent 5428829)**.

Consider **claim 1**, Osburn et al. clearly disclose a receiver comprising (figures 3a, 3b): a high frequency receiving circuit (figure 3a, block 86) for which a reception

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frequency in accordance with a tuning voltage is set (RF tuning voltage); a local oscillator (figure 3a, block 104) for generating a local oscillation signal of a frequency in accordance with a control voltage (VCO tuning voltage); a mixing circuit (mixer 94) for mixing a signal outputted from said high frequency receiving circuit (86) with said local oscillation signal (110); a setting data generating unit (microcomputer 98, column 8 lines 52-62) for outputting setting data corresponding to a predetermined reception frequency; and a digital-analog converter (D/A converter 134) for generating said tuning voltage (figure 3b, output signal 112) corresponding to the setting data outputted from said setting data generating unit, the tuning voltage being changed with a predetermined temperature coefficient in accordance with ambient temperature (column 8 lines 32-49, the tuning voltage may be changed by the D/A converter 134 or the VCO tuning voltage with the temperature coefficient of the VCO tuning voltage).

Consider **claim 2 as applied to claim 1**, Osburn et al. clearly disclose wherein said high frequency receiving circuit and said local oscillator, each includes a resonance circuit in which a variable capacitance diode of which electrostatic capacitance can be changed by said control voltage or said tuning voltage, is connected with a coil, and wherein in each of said resonance circuits, said variable capacitance diode and said coil are connected in a same form (figure 3a, the resonance circuits 86, 104).

Consider **claim 3 as applied to claim 1**, Osburn et al. clearly disclose wherein said digital-analog converter changes said tuning voltage in accordance with ambient temperature so as to prevent the reception frequency of said high frequency receiving circuit from fluctuating in accordance with variation of ambient temperature (D/A

converter 134 changes said tuning voltage (column 7 formula 4) in dependence of Vd according to ambient temperature (column 8 lines 32-49) as to temperature compensation of the circuit).

Allowable Subject Matter

6. **Claims 4-8** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Consider **claim 4 as applied to claim 1**, the best prior art of record found during the examination of the present application, Osburn et al. (**US Patent 5428829**) in view of **Kobayashi (US Patent 6243570)** fail to specifically disclose wherein said digital-analog converter comprises a temperature coefficient setting section constituted by including elements having predetermined temperature coefficients, and wherein a device constant of said temperature coefficient setting section as a whole is changed in accordance with ambient temperature.

Osburn et al. clearly disclose said D/A converter 134 as being a programmable gain multiplier, for multiplying the VCO tuning voltage by a gain factor, said VCO tuning voltage has a temperature coefficient.

In the same field of the endeavor, Kobayashi clearly discloses (figure 4, column 3 lines 39-58) a digital to analog converter that converts a digital signal to an analog signal, said digital signal associates with ambient temperature change, and said analog signal output to RF tuning circuit for adjusting/correcting tuning frequency error due to ambient temperature change.

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However, Osburn et al. as modified by Kobayashi only disclose the D/A converter as a transitional element producing tuning voltage for RF/VCO tuning. These teachings clearly differ from the claimed invention; therefore, claims 4-8 of the present application are considered novel and non-obvious over the prior art and, consequently, are allowed.

Conclusion

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed**

to: Commissioner for Patents
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Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RuiMeng Hu whose telephone number is 571-270-1105. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

RuiMeng Hu

R.H./rh

January 17, 2007

EDAN ORGAD
PRIMARY PATENT EXAMINER

Edan Orgad 1/20/07